

233 South Wacker Drive Suite 800, Willis Tower Chicago, IL 60606

312-454-0400 (voice) 312-454-0411 (fax) www.cmap.illinois.gov

MEMORANDUM

To: Transportation Committee

Date: February 26, 2010

From: Don Kopec, Deputy Director, Planning and Programming

Re: Major Transportation Capital Projects – Status Update

The *GO TO 2040* plan will include a fiscally constrained list of major capital projects, as required by federal regulations. Since there is insufficient funding available to pursue all potentially beneficial projects, project prioritization is necessary. This memo describes how the level of fiscal constraint was determined; presents the initial staff proposal for projects to be included within the constrained amount; and describes the schedule and next steps in developing a final list of fiscally constrained projects.

Project prioritization

Projects were prioritized based on their support for the Preferred Regional Scenario, the results of the individual evaluations, and information from other project analyses. As discussed in the February 26 financial plan memo, the priorities of *GO TO 2040* are to maintain the existing system and make systematic improvements. The bulk of the region's transportation investment will be to maintain, improve, and modernize our infrastructure; pursuing new major capital projects, while important, is a lower priority than these other activities.

The highest priority major capital projects are those on the *fiscally constrained* list, on page 4 of this memo; these make up approximately one-quarter of the cost of all proposed projects. Several themes can be seen in the prioritization of fiscally constrained projects. First, there are few "new" projects or extensions. The majority of the constrained projects involve improvements to existing facilities. Second, there are a number of "managed lanes" projects. These are envisioned to incorporate advanced tolling strategies such as congestion pricing, transit alternatives like Bus Rapid Transit (BRT), or special accommodations for truck travel. Third, there is considerable public investment in transit. These priorities are consistent with the direction of the Preferred Regional Scenario, which calls for investment in the existing system, use of innovative transportation finance methods, support for freight, and a focus on improving the public transit system.

Determination of fiscal constraint

A detailed transportation financial plan is being prepared as part of *GO TO 2040*, and will be presented to the Transportation Committee in March as a separate item. Elements of the financial plan have been presented at past meetings beginning in spring 2009.

The conclusions of this work are that approximately \$10.5 billion (in year of expenditure dollars, or YOE\$) in funding from existing or reasonably expected sources is likely to be available for major capital projects between now and 2040. This is an increase from the amount of \$8 billion estimated at the January meeting of the Transportation Committee. This increase is due to changes in assumptions about the level of investment needed to maintain the system at a safe and adequate level. While the increase from \$8 billion to \$10.5 billion is significant, it remains a small percentage of the region's overall \$385 billion in transportation expenditures.

Before addressing project categorizations, please note three important points regarding fiscal constraint.

• First, the constrained costs of new capital projects include not only the cost of construction, but the cost of operating and maintaining them from construction until 2040. For highways, annual operations and maintenance costs were assumed to be 1% of the initial cost of construction of the new facility. For transit, this same amount was assumed for annual maintenance, but operations were handled separately. Annual transit operation costs were sometimes estimated by the implementer, in which case these costs were used; in cases where this was not given, an estimate of 1% of the initial construction cost was used. In all cases, half of the transit operating cost was assumed to be covered through farebox recovery and was not "charged" to the fiscal constraint.

To use an example, a transit project that cost \$1 billion to construct in 2020 would then need to be maintained and operated until 2040. Maintenance costs were assumed to start at \$10 million per year, with this figure rising with inflation (so, annual maintenance costs in 2030 would be \$13.4 million instead). Operations costs would also start at \$10 million per year, but half of this would be covered through fares, so only \$5 million annually (rising in future years with inflation) would be considered as part of the project cost. In this hypothetical example, the \$1 billion transit project constructed in 2020 would cost an additional \$400 million to maintain and operate until 2040.

• Second, project revenues have not been counted as part of this \$10.5 billion figure. Generally, revenues from projects would be gathered through tolling, or through the use of private funds. (Revenues from farebox recovery have already been subtracted from project cost, as described above.) The \$10.5 billion estimate includes only public contributions. In other words, if a project could be constructed using revenue gathered entirely from tolls, it would require no public funding and would not count against the \$10.5 billion constraint. Potential revenues will be addressed project by project.

• Third, many capital projects include reconstruction of existing facilities, as well as new capacity. For example, a highway add-lanes project typically also includes the reconstruction or resurfacing of the existing facility. Often, the reconstruction or resurfacing would have needed to happen regardless of whether the add-lanes project had been pursued. Within the financial classifications used in the transportation financial plan, this would already be counted as a necessary expense to maintain a safe and adequate system. It is important to note that the \$10.5 billion figure **does not** include these reconstruction costs, meaning that it is **not** double-counting these expenses.

To create an estimate of the proportion of project costs that would likely be used for reconstruction, staff reviewed major capital projects constructed during the past twenty years, from 1990 to 2009. It was estimated based on this review that approximately 50% of the total cost of these projects was devoted to the addition of new capacity, and 50% involved reconstruction. These means that to reach a capital cost of \$10.5 billion, approximately \$21 billion in total project cost should actually be identified.

Staff recognizes that this calculation is confusing. A simpler approach would be to set the fiscal constraint for major capital projects at \$21 billion and ignore the "double-counting" issue. This would lead to the same outcome in terms of the number of projects that could be accommodated within the fiscal constraint. But it also would overstate the level of funding that is actually devoted to new elements of the transportation system, and it would send the wrong message in terms of the priorities of *GO TO 2040*. The initial constrained project list includes projects that have \$21 billion in total costs, but these projects do more than add new capacity to the system; they also reconstruct and modernize the infrastructure we already have.

Project categorization

In the tables below, projects are broken into two categories:

- Projects that are *fiscally constrained*, meaning that their costs can be covered within the region's expected transportation revenue and that the project has been included in the demonstration that air quality standards will be met (it is conformed). This is the highest priority category of major capital projects.
- Projects that are *fiscally unconstrained*. As a later step, further prioritization and classification of these projects is expected.
- Also, several projects were proposed by individuals or organizations during the *GO TO* 2040 plan or during past regional plans but were not fully evaluated. These projects are listed in an appendix attached to this memo.

By federal regulations, major capital projects may not have a federal action, such as receiving design approval, unless they are included in the *fiscally constrained* project list. Implementers may initiate preliminary engineering, feasibility studies, or other preliminary work regardless of how projects are treated within *GO TO 2040*.

Regional planning is a continuous process which responds to changing circumstances, and priorities change over time. The long-range plan is updated at least every four years, and this provides an opportunity to reassign projects to different categories in response to changes in funding situations or priorities. Even outside of the required update cycle, the plan can be modified at any point by the MPO Policy Committee and CMAP Board. However, changes between plan updates should not be made casually; they should be reserved for rare circumstances that could not be foreseen. CMAP believes that the project categories should truly reflect the region's priorities.

The initial staff proposal for the categorization of projects is presented on the following pages. The first chart shows that the total public sector cost for new capital for the constrained projects is approximately \$10.5 billion. Please note that a line item of \$100 million is included for the continued study and prioritization of projects that are currently not on the constrained list. Some of these projects appear to have considerable potential, but are at an early stage in the project development process; this funding is meant to advance the planning and study of these projects to better understand their benefits.

Initial proposal for *fiscally constrained* projects:

Project	Year	Construction cost, 2009\$b	Full cost, YOE\$b	Revenue (toll) assumptions	Public sector cost, YOE\$b
New facilities and extensions					
Central Lake County Corridor: IL 53 North and IL 120 Limited Access	2025	2.00	3.41	75%	0.85
Elgin O'Hare Expressway Improvements (includes Western O'Hare Bypass, EOE East Extension, and EOE Add Lanes)	2020	3.60	5.49	75%	1.37
I-294/I-57 Interchange Addition	2020	0.58	0.88	20%	0.71
Red Line Extension (South)	2015	1.05	1.88	0%	1.88
West Loop Transportation Center	2020	2.50	4.15	0%	4.15
Expansions and improvements					
I-190 Access Improvements	2020	0.36	0.54	0%	0.54
I-290 Managed Lanes	2020	1.50	2.29	25%	1.72
I-55 Managed Lanes	2025	1.60	2.72	25%	2.04
I-80 Add Lanes (US 30 to US 45)	2015	0.10	0.14	0%	0.14
I-88 Add Lanes	2020	0.02	0.03	75%	0.01
I-90 Managed Lanes	2020	1.80	2.74	75%	0.69
I-94 Add Lanes North	2015	0.10	0.14	75%	0.03
North Red Line Improvements	2020	2.26	3.45	0%	3.45
Rock Island Improvements	2020	0.47	0.71	0%	0.71
Southwest Service Improvements	2020	0.19	0.31	0%	0.31
UP North Improvements	2020	0.40	0.66	0%	0.66
UP Northwest Improvements/Extension	2017	0.44	0.69	0%	0.69
UP West Improvements	2017	0.56	0.89	0%	0.89
Other					
Continued study and prioritization					0.10
Total public sector cost					20.8
Total public sector cost for new capital elements*		1 - 700/ 61			10.5

^{*} This figure is calculated by applying the standard that 50% of the cost of an average project actually involves reconstruction, which has already been counted in the "safe and adequate" or "state of good repair" cost categories. Therefore, while the total project costs of constrained projects are \$20.8 billion, only \$10.4 billion of this is actually

estimated to be for new capital elements. Added to this is the \$100 million in project development costs described above.

Initial proposal for *fiscally unconstrained* projects:

Project	Year	Construction	Full cost,	Revenue (toll)	Public sector
-,		cost, 2009\$b	YOE\$b	assumptions	cost, YOE\$b
New facilities and extensions		2003φ2	1020	uosumptions	Costy 1 C Equ
Blue Line West Extension	2040	2.30	5.58	0%	5.58
BNSF Extension	2020	0.08	0.12	0%	0.12
Brown Line Extension	2040	3.70	8.98	0%	8.98
Central Area Transitway	2020	0.30	0.50	0%	0.50
Circle Line (North)	2040	2.00	4.85	0%	4.85
Circle Line (South)	2017	1.00	1.79	0%	1.79
DuPage "J" Line	2030	1.10	2.16	0%	2.16
Elgin O'Hare Expressway West Extension	2030	0.18	0.34	25%	0.26
Elgin O'Hare Expressway Far West					
Extension	2030	0.21	0.40	25%	0.30
I-80 to I-55 Connector	2040	0.10	0.24	50%	0.12
Illiana Corridor	2030	2.87	5.48	75%	1.37
Inner Circumferential Rail Service	2040	1.10	2.67	0%	2.67
McHenry-Lake Corridor	2040	1.00	2.43	25%	1.82
Metra Electric Extension	2020	0.26	0.43	0%	0.43
Mid-City Transitway	2040	1.30	3.16	0%	3.16
Milwaukee District North Extension	2020	0.58	0.96	0%	0.96
Milwaukee District West Extension	2020	0.78	1.29	0%	1.29
O'Hare to Schaumburg Transit Service	2040	1.00	2.43	0%	2.43
Orange Line Extension	2015	0.45	0.69	0%	0.69
Prairie Parkway	2025	0.90	1.53	25%	1.15
Rock Island Extension	2040	0.05	0.12	0%	0.12
Southeast Service	2017	0.74	1.17	0%	1.17
Southwest Service Extension/Full Service	2040	0.29	0.71	0%	0.71
STAR Line	2017	2.76	4.39	0%	4.39
Yellow Line Enhancements and Extension	2015	0.23	0.36	0%	0.36
Expansions and improvements					
Express Airport Train Service	2020	1.75	2.87	0%	2.87
Heritage Corridor	2040	0.18	0.43	0%	0.43
I-55 Add Lanes and Reconstruction	2020	0.75	1.14	0%	1.14
I-57 Add Lanes	2030	0.80	1.53	0%	1.53
I-80 Add/Managed Lanes	2025	2.25	3.83	25%	2.87
IL 394	2020	0.54	0.82	0%	0.82
Milwaukee District North Improvements	2020	0.08	0.12	0%	0.12
North Central Service Improvements	2040	0.30	0.72	0%	0.72
South Lakefront Corridor	2020	1.00	1.66	0%	1.66
Total public sector cost					60.70
Total public sector cost for new capital			-		30.35
elements*					30.33

^{*} This figure is calculated by applying the standard that 50% of the cost of an average project actually involves reconstruction, which has already been counted in the "safe and adequate" or "state of good repair" cost categories.

Project evaluation results

The January memo to the Transportation Committee included the results of the initial evaluation of each of the projects individually. This has been updated to reflect adjustments that were made

to a few projects which had problematic evaluations. The updated information is posted on the Transportation Committee website with the other March meeting materials.

The caveats that accompanied this table in January remain in place. These are high-level informational results produced using a regional model, and ranking projects based solely on these results is not recommended. Committee members should use caution in comparing projects, as small differences between them are likely not significant. In addition, any recommended project will require additional detailed study prior to implementation. Project-level studies produce different results, appropriate to the level of detailed needed for implementation. The results in this evaluation are intended to provide only a general idea of comparative benefits.

Finally, projects are not implemented in isolation. The interactions between mutually-supportive projects improve system performance beyond the sum of the individual measures. The calculation of evaluation measures for the entire set of constrained projects is underway, and initial results will be shared at the Transportation Committee meeting if available.

Schedule and next steps

The project categorization described above represents an initial staff proposal concerning the treatment of major capital projects. Discussion of this is expected at the Transportation Committee and Planning Coordinating Committee (on March 10), and modifications may be made based on these discussions. Following this, comments from stakeholders and the public will be sought during late March and April. The Transportation Committee will be briefed on the results to date at its April meeting.

In May, the Transportation Committee will be requested to recommend the endorsement of the categorization of major capital projects into constrained and unconstrained lists, possibly with further breakdowns among the unconstrained projects. The MPO Policy Committee and CMAP Board are expected to be asked for endorsement at their June meetings. Following this endorsement, a formal conformity analysis and public comment period will be held over the summer, with final adoption of the *GO TO 2040* plan and major capital projects by the MPO Policy Committee and CMAP Board in October.

ACTION REQUESTED: Discussion.

Attachment 1 Projects Not Evaluated

- Illinois Rail Net Corridor: This proposal recommends a light rail or bus rapid transit system in Kendall County.
- Illinois Transit System and Spider 10 Hwy System: This proposal features several elements. One is to develop a monorail transit system to replace the existing CTA rapid transit facilities. The second is to develop a "Spider 10" connective highway system to lead to all major arteries and highways.
- Limited Stop Airport Train Service: The Limited Stop Airport Train Service proposes airport express train service with a select number of midstream station facilities along the existing CTA Blue and Orange Lines. The Jefferson Park and Logan Square Blue Line stations are envisioned as the first two midstream stations.
- Monorail System: This proposal calls for developing a monorail system across the NE Illinois region utilizing existing transportation facility ROWs where feasible. The multipurpose non motorized Great Western Trail and Illinois Prairie Path in the western suburbs have been proposed as initial routes.
- O'Hare Direct High Speed Rail Service Network: This proposal calls for establishing a network of express commuter trains linking O'Hare with Union Station and intermodal centers with remote parking lots in Barrington, Deerfield, Naperville and Homewood.
- Rainbow Line: This proposal calls for establishing new rapid transit lines within the City of Chicago Boulevard System right-of-ways. The name of the proposal is inspired by the rainbow-like imprint of the main boulevard system. Two additional east-west branches, each roughly paralleling 95th Street and Lawrence Avenue respectively would be built in order to maximize connectivity with other rapid transit and commuter rail lines.
- Reason Foundation Project: A network of High-Occupancy Toll (HOT) expressways that includes both existing and new corridors has been proposed for the Chicago region. The key design feature of this proposal is tunneling or underground placement of new HOT, or congestion priced, lanes as a means of addressing concerns about aesthetics, noise, and property value concerns.
- Transportation for the Future Now: This proposal calls for the implementation of an
 Electronic Mechanical Highway. This type of facility will incorporate automated vehicle
 guidance (AVG) and other advanced technologies to propel both specially designed new
 vehicles or retrofitted older vehicles in motion with little congestion-causing friction or
 conflict.

Projects Initially Listed but Since Removed

- **Prairie Parkway Southeast Extension**: This proposal called for extending the Prairie Parkway corridor from its junction with I-80 in Minooka southeast to I-57. It has been incorporated into the Illiana Corridor.
- South Suburban Corridor: The proposal extended from the proposed I-355 south extension to I-80 east to I-57 in order to connect to the proposed I-57/IL394 Connector. It has been incorporated into the Illiana Corridor.

- **I-57 to IL 394 Connector**: The proposal was to extend the proposed South Suburban Corridor from its proposed terminus at I-57 east to IL 394 in the vicinity of the proposed South Suburban Airport. It has been incorporated into the Illiana Corridor.
- Illiana Corridor Extension: This proposal to extend the Illiana Expressway from I-55 to IL 394 has been incorporated into the Illiana Corridor project, including the Illiana Expressway.
- McHenry Co Extension of Prairie Parkway: This proposal called for extension of the Prairie Parkway corridor north from the Kane County Line – roughly I-90- up to the Illinois Wisconsin border. It is currently not being pursued.
- **BNSF Montgomery Extension**: This extension of the Burlington Northern Santa Fe line from Montgomery to Aurora is superseded by a proposed extension to Oswego/Plano.
- **BNSF Sugar Grove Extension**: This extension of the Burlington Northern Santa Fe line from Sugar Grove to Aurora is superseded by a proposed extension to Oswego/Plano.
- **UP-NW Extension to Richmond**: This extension of the Union Pacific Northwest line from McHenry to is now being extended to Johnsburg.
- CCP RR Service from Burlington: This proposal called for implementing commuter rail service from Burlington IL (NW Kane County) along the CCP RR right-of-way. It is currently not being pursued.
- **Circle Line**: The Circle Line was composed of new strategic links to Chicago's rapid transit system located in a ring about two to three miles from the Chicago Central Business District. The project has been divided into two parts, the Circle Line North and the Circle Line South.
- **Gold Line**: The Gold Line proposal called for an improved rail service line operating alongside the current Metra Electric mainline from Millennium Station to 63rd Street, and then utilizing the current Metra Electric South Chicago Branch ROW up to 93rd Street. It is incorporated into the South Lakefront Corridor proposal.
- **Gray Line LRT**: This proposal, to operate a rapid transit line on the current Metra Electric mainline and Metra Electric South Chicago Branch between Millennium Station and South Chicago-93rd Street, is incorporated into the South Lakefront Corridor proposal.
- **Green Line Enhancements**: this proposal included increasing the number of stations on the Green Line while maintaining or improving transit service levels. The scope of the project is such that it is not a major capital project using the definition in *GO TO 2040*.
- **Tollway Transit System**: This proposal for additional Exclusive Bus Lane/Service on I-294 and I-90 is not a major capital project using the definition in *GO TO 2040*.
- **Cicero Avenue Bus Rapid Transit**: This proposal for a Bus Rapid Transit service from Jefferson Park Blue Line Station to Ford City is not a major capital project using the definition in *GO TO 2040*.
- **South Shore Commuter Rail Extension**: This extension of the South Shore Railroad to Lowell, IN is not within the region covered by *GO TO 2040*.
- I-294 Add Lanes South: This project to add lanes to I-294 from 95th Street to IL 394 is completed.